Issuance Date: DRAFT
Effective Date: DRAFT
Expiration Date: DRAFT

DRAFT PUGET SOUND NUTRIENT GENERAL PERMIT

National Pollutant Discharge Elimination System (NPDES) and State Waste Discharge General Permit for Nutrient Discharges Associated with Domestic Wastewater Treatment Plants

State of Washington
Department of Ecology
Olympia, WA 98504

In compliance with the provisions of
Chapter 90.48 Revised Code of Washington
(State of Washington Water Pollution Control Act)
and
Title 33 United States Code, Section 1251 et seq.
The Federal Water Pollution Control Act (The Clean Water Act)

Until this permit expires, is modified or revoked, Permittees that have properly obtained coverage under this general permit are authorized to discharge in accordance with the special and general conditions that follow.

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Vincent McGowan, P.E.
Water Quality Program Manager

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SUMMARY OF PERMIT REPORT SUBMITTALS

Refer to the Special and General Conditions within this permit for additional submittal requirements. Appendix A provides a list of definitions. Appendix B provides a list of acronyms.

Table 1. Summary of Permit Report Submittals

Permit Section	Submittal	Frequency	First Submittal Date
S2.A.1	Permit Application (Notice of Intent)	Once	For new Permittees: No later than 90 days following permit issuance
G9	Transfer of Coverage	As necessary	As necessary
S9.A	Discharge Monitoring Reports (DMRs)	Monthly	Within 28 days of applicable monitoring period
G2	Notice of Change in Authorization	As necessary	As necessary
G6	Permit Application for Substantive Changes to the Discharge	As necessary	As necessary
G8	Application for Permit Renewal	1/permit cycle	No later than 180 days before expiration
G20	Notice of Planned Changes	As necessary	As necessary
G22	Reporting Anticipated Non-Compliance	As necessary	As necessary

Table 2. Summary of Required On-Site Documentation

Permit Condition(s)	Document Title
S9.B.3	Original Sampling Records (Field notes, as applicable and Laboratory Reports)
S9.G.1.a	Copy of Permit Coverage Letter
S9.G.1.b	Copy of Puget Sound Nutrient General Permit
S9.G.1.c	Copies of Discharge Monitoring Reports
S9.G.1.d	Copies of attachment to the Annual or Single NOP Reports (as applicable)
S9.G.1.e	Copy of the Nutrient Reduction Evaluation or AKART Analysis (as applicable)

To request ADA Accommodation, contact Water Quality Reception at 360-407-6600 or visit https://ecology.wa.gov/accessibility. For Relay Services or TTY call 711 or 877-833-6341.

For document translation services, call Water Quality Reception at 360-407-6600. Por publicaciones en espanol, por favor llame Water Quality Reception al 360-407-6600.

SPECIAL CONDITIONS

S1. PERMIT COVERAGE

A. Coverage Area and Eligible Discharges

This Puget Sound Nutrient General Permit (PSNGP) applies to the 58 publically owned ***domestic wastewater*** treatment plants (WWTPs or POTWs) discharging into ***Washington Waters of the Salish Sea***, except for federal and Tribal lands and waters as specified in Special Condition S1.D. Table 3 identifies the WWTPs covered by this permit along with their individual ***NPDES*** permit number for reference. This proposed permit assigns a category to each WWTP based on their percentage of the ***total inorganic nitrogen*** **(TIN)** load currently discharged to Washington Waters of the Salish Sea. Special Conditions S4 lists permit conditions and limits for the WWTPs with the dominant (D) TIN loads. Special Condition S5 list the conditions and limits for the WWTPs with small (S) loads.

Table 3. List of Domestic WWTPs Discharging to Puget Sound

Wastewater Treatment Plant	Individual NPDES Permit Number	Category
Alderwood Sewage Treatment Plant (STP)	WA0020826	S
Anacortes WWTP	WA0020257	D
Bainbridge Island WWTP	WA0020907	S
Birch Bay Sewage Treatment Plant (STP)	WA0029556	D
Boston Harbor STP	WA0040291	S
Bremerton WWTP	WA0029289	D
Chambers Creek WWTP	WA0039624	D
Clallam Bay WWTP	WA0024431	S
Clallam Bay Corrections Center WWTP	WA0039845	S
Coupeville WWTP	WA0029378	S
Eastsound Orcas Village WWTP	WA0030911	S
Eastsound Sewer and Water District WWTP	WA0030571	S
Edmonds STP	WA0024058	D
Everett STP	WA0024490	D
Fisherman Bay STP	WA0030589	S
Friday Harbor STP	WA0023582	S

Wastewater Treatment Plant	Individual NPDES Permit Number	Category
Gig Harbor WWTP	WA0023957	S
Hartstene Pointe STP	WA0038377	S
King County, Brightwater WWTP	WA0032247	D
King County, South WWTP	WA0029581	D
King County, Vashon WWTP	WA0022527	S
King County, West Point WWTP	WA0029181	D
Kitsap County, Central Kitsap WWTP	WA0030520	D
Kitsap County, Kingston WWTP	WA0032077	S
Kitsap County, Manchester WWTP	WA0023701	S
Kitsap County Sewer District #7 Water Reclamation Facility (WRF)	WA0030317	S
La Conner STP	WA0022446	S
Lake Stevens Sewer District WWTP	WA0020893	D
Lakota WWTP	WA0022624	D
Langley WWTP	WA0020702	S
Lighthouse Point WRF/Blaine STP	WA0022641	D
LOTT Budd Inlet WRF	WA0037061	D
Lynnwood STP	WA0024031	D
Marysville STP	WA0022497	D
McNeil Island Special Commitment Center WWTP	WA0040002	S
Midway Sewer District WWTP	WA0020958	D
Miller Creek WWTP	WA0022764	D
Mt Vernon WWTP	WA0024074	D
Mukilteo Water and Wastewater District WWTP	WA0023396	S
Oak Harbor STP	WA0020567	S
Penn Cove WWTP	WA0029386	S
Port Angeles WWTP	WA0023973	D
Port Orchard WWTP (South Kitsap WRF)	WA0020346	D
Port Townsend STP	WA0037052	S
Post Point WWTP (Bellingham STP)	WA0023744	D
Redondo WWTP	WA0023451	D

Wastewater Treatment Plant	Individual NPDES Permit Number	Category
Rustlewood WWTP	WA0038075	S
Salmon Creek WWTP	WA0022772	D
Sekiu WWTP	WA0024449	S
Sequim WRF	WA0022349	S
Shelton WWTP	WA0023345	S
Skagit County Sewer District 2 Big Lake WWTP	WA0030597	S
Snohomish STP	WA0029548	D
Stanwood STP	WA0020290	S
Tacoma Central No. 1 WWTP	WA0037087	D
Tacoma North No. 3 WWTP	WA0037214	D
Tamoshan STP	WA0037290	S
WA Parks Larrabee WWTP	WA0023787	S

B. Limits on Coverage

Coverage under this General Permit does not include discharges from WWTPs not listed in Table 3. Coverage under this General Permit also excludes all discharges from non-WWTP outfalls.

This permit does not cover the following discharges:

1. Discharges from facilities located on "Indian Country" as defined in 18 U.S.C. §1151, except portions of the Puyallup Reservation as noted below. Indian Country includes:

    a. All land within any Indian Reservation, notwithstanding the issuance of any patent, and including rights-of-way running through the reservation. This includes all federal, tribal, and Indian and non-Indian privately owned land within the reservation.

    b. All off-reservation Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same.

    c. All off-reservation federal trust lands held for Native American Tribes.

    Puyallup Exception: Following the *Puyallup Tribes of Indians Land Settlement Act of 1989*, 25 U.S.C. §1773,the permit does apply to land within the Puyallup Reservation except for discharges to surface water on land held in trust by the federal government.

2. Discharges from activities operated by any department, agency, or instrumentality of the executive, legislative, and judicial branches of the Federal

Government of the United States, or another entity, such as a private contractor, performing industrial activity for any such department, agency, or instrumentality.

3. Discharges from any industrial or privately owned wastewater treatment plant into Washington waters of the Salish Sea.
4. Discharges from domestic WWTPs entering tributary watersheds to Washington waters of the Salish Sea, upstream of Ecology Ambient monitoring stations.

S2. APPLICATION FOR COVERAGE

A. Obtaining Permit Coverage

1. The ***owner***/***operator*** seeking coverage under this permit must apply for permit coverage within the following time limits.

    a. Existing facilities are POTWs in operation prior to the effective date of this permit, January 1, 2022 and are identified in Table 3.

    b. The owner/operator of an existing domestic wastewater treatment plant must submit a complete application for coverage no later than ninety (90) ***days*** after the issuance date of this permit. Upon submittal of a complete application for coverage (also called a ***Notice of Intent*** or NOI) ***Ecology*** will issue a decision on permit coverage pursuant to Special Condition S2.C.

B. How to Apply for Permit Coverage

The owner/operator seeking coverage under this permit must do the following:

1. Submit to Ecology, a complete application for coverage using Ecology's Water Quality Permitting Portal _ permit Coverage Notice of Intent form. The ***applicant*** must submit this application for coverage electronically.

    a. Use the Water Quality Permitting Portal (WQWebPortal) to submit a complete application for coverage to Ecology. For more information about the WQWebPortal, visit the following link: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance

2. A responsible person, as defined in General Condition G2 must sign the signature page of the NOI and submit it to Ecology.

3. Public Notice

a. Public notice of the application for coverage is not required for the facilities subject to this general permit because they are all existing facilities.

b. The owner/operator of an existing facility with coverage under the Puget Sound Nutrient General Permit (***Permittee***) wanting to modify their permit coverage must comply with public notice requirement specified in Special Condition S2.D.2.

C. Permit Coverage Effective Date

1. Permit coverage begins on the day Ecology issues the coverage letter to the applicant.

2. If the applicant does not receive notification from Ecology, permit coverage automatically commences on whichever of the following dates occurs last.

   a. The 31st day after Ecology receives a complete application for coverage.

   b. The 31st day after the end of the public comment period on the issuance of the permit.

   c. The effective date of this permit.

D. Modification of Permit Coverage

A permittee anticipating a significant process change due to a corrective action, a reduction in monitoring, a change in action level, or otherwise requesting a modification of permit coverage, must submit a complete Modification of Coverage Form to Ecology. The Permittee must:

3. Apply for modification of coverage at least 60 days prior to the change necessitating the coverage modification.

4. Complete the public notice requirements in WAC 173-226-130(5) as part of a complete application for modification of coverage.

5. Comply with ***SEPA*** as part of a complete application for modification of coverage if undergoing a significant process change.

S3. COMPLIANCE WITH STANDARDS

A. Discharges must not cause or contribute to a violation of surface water quality standards (Chapter 173-201A WAC), sediment management standards (Chapter 173-204 WAC), and human health-based criteria in the Federal water quality criteria applicable to Washington (40 CFR Part 135.45). This permit does not authorize discharge in violation of water quality standards.

B. Ecology presumes that a Permittee complies with water quality standards unless discharge monitoring data or other ***site***-specific information demonstrates that a discharge causes or contributes to a violation of water quality standards, when the Permittee complies with the following conditions. The Permittee must fully comply with all permit conditions, including planning, ***optimization***, sampling, monitoring, reporting, waste management, and recordkeeping conditions.

S4. NARRATIVE EFFLUENT LIMITS FOR WWTPS WITH DOMINANT TIN LOADS

A. Applicability and Narrative Effluent Limits

Beginning on the effective date and lasting through the expiration of this permit, each of the Permittees with dominant TIN loads listed in Table 5 may discharge TIN from the WWTP through the designated ***outfall(s)*** described in its individual NPDES permit. See Table 3 in Section S1.A for the load category assignment.

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. Each Permittee listed in Table 5 must comply with the facility specific or bubbled ***action levels*** and narrative effluent limits listed in Table 4, which constitute the suite of ***best management practices*** (BMPs) required for a water quality based effluent limit under 40 CFR 122.44(k).

Table 4. Narrative Effluent Limitations for Dominant TIN Loaders

Parameter	Narrative Effluent Limit
Monitoring	Monitor and report per the requirements in S6.A.
Nitrogen Optimization Plan	Optimize treatment performance to stay below the action level. Submit Optimization Report annually per the requirements in S4.C
Nutrient Reduction Evaluation	Submit Nutrient Reduction Evaluation per the requirements in S4.E

B. TIN Action Levels

If the action level listed in Table 5 or the bubbled action levels listed for single jurisdictions in Table 6 are exceeded, the Permittee is required to employ corrective actions identified in S4.D.

The annual Action Level is the sum of monthly nutrient loads measured over one year. This total will be evaluated once per year and described in the Annual Report.

Table 5. Dominant WWTPs and Total Inorganic Nitrogen Action Levels

Wastewater Treatment Plant	Individual NPDES Permit Number	Action Level, TIN lbs/year	Outfall Number
Anacortes WWTP	WA0020257	163,000	001
Birch Bay Sewage Treatment Plant (STP)	WA0029556	64,600	001
Blaine STP (Lighthouse Point WRF)	WA0022641	18,200	001
Bremerton WWTP	WA0029289	577,000	001
Kitsap County Central Kitsap WWTP	WA0030520	250,000	001
Chambers Creek WWTP	WA0039624	1,880,000	001
Edmonds STP	WA0024058	419,000	001
Everett STP	WA0024490	1,530,000	100/015
King County Brightwater WWTP [1]	WA0032247	1,810,000	001
King County South WWTP [1]	WA0029581	7,340,000	001
King County West Point WWTP [1]	WA0029181	6,670,000	001
Lake Stevens Sewer District WWTP	WA0020893	118,000	002
Lakota WWTP [2]	WA0022624	583,000	001
LOTT Budd Inlet WWTF	WA0037061	243,000	001
Lynnwood STP	WA0024031	341,000	001
Marysville STP	WA0022497	577,000	100/001
Midway Sewer District WWTP	WA0020958	601,400	001
Miller Creek WWTP [3]	WA0022764	289,900	001
Mt Vernon WWTP	WA0024074	380,000	004
Port Angeles WWTP	WA0023973	170,000	001/002
Port Orchard WWTP (South Kitsap WRF)	WA0020346	208,000	001
Post Point WWTP (Bellingham STP)	WA0023744	969,000	001

Wastewater Treatment Plant	Individual NPDES Permit Number	Action Level, TIN lbs/year	Outfall Number
Redondo WWTP [2]	WA0023451	241,000	001
Salmon Creek WWTP [3]	WA0022772	195,000	001
Snohomish STP	WA0029548	78,900	001
Tacoma Central No. 1 WWTP [4]	WA0037087	2,410,000	001
Tacoma North No. 3 WWTP [4]	WA0037214	336,000	001

Table 6. Bubbled Action Levels for Corrective Action Assessment

Jurisdiction	Bubbled Action Level, TIN lbs/year
King County [1]	15,820,000
Lakehaven Water and Sewer District [2]	824,000
Southwest Suburban Sewer and Water District [3]	484,000
City of Tacoma [4]	2,746,000

C. Nitrogen Optimization Plan and Report

Each Permittee listed in Table 5 shall develop, implement and maintain a Nitrogen Optimization Plan to evaluate operational strategies for maximizing nitrogen removal from the existing treatment plant to stay below the calculated action level. Each Permittee must document their actions taken, any action level exceedances, and apply an adaptive management approach at the WWTP. Permittees will quantify results with required monitoring under this Permit.

The Permittee must begin the actions described in this section immediately upon permit coverage. Documentation of Nitrogen Optimization Plan implementation must be submitted annually through the Annual Report (S9- Reporting Requirements). See Appendix C for Annual Report questions that satisfy the Nitrogen Optimization Plan requirements.

The Nitrogen Optimization Plan submitted by each Permittee in Table 5 must include the following components:

1. Treatment Process Performance Assessment

   Assess the nitrogen removal potential of the current treatment process and identify viable optimization strategies prior to implementation.

a. *Process modeling.* Develop and maintain a process model (or other equivalent treatment evaluation method) of the existing treatment plant for purposes of evaluating optimization approaches. Use the model to:

   i. Evaluate current (pre-optimization) process performance to determine the existing empirical TIN removal rate for the WWTP.

   ii. Develop an initial assessment approach to evaluate possible optimization strategies at the WWTP prior to and after implementation. Update this assessment approach as necessary with each Annual Report.

b. *Identify and evaluate optimization strategies.* Determine the optimization goal(s) for the WWTP. Apply the assessment approach to document the optimization strategies capable of achieving the optimization goal for each WWTP owned and operated by the Permittee. Prioritize and update this list as necessary to continuously maintain at a working set of strategies for achieving each optimization goal identified.

   The Permittee may exclude any optimization strategy considered but found to exceed a reasonable implementation cost or timeframe that exceeds one year. Documentation must include an explanation of the rationale and financial criteria used in the exclusion determination.

c. *Initial Selection.* **By May 1, 2022**, select at least one optimization strategy for implementation.

   Document the expected % TIN removal for the initial optimization strategy prior to implementation.

   Identify a performance metric to evaluate results. TIN % removal, or a calculated reduction in effluent load or concentration may be used as a performance metric.

2. Optimization Implementation

   All Permittees in Table 5 must document implementation of the selected optimization strategy (from S4.C.1.c) during the first reporting period in the first Annual Report due March 31, 2023. Permittees must document implementation during every reporting period thereafter. The documentation must include:

   a. *Strategy Implementation.* Describe how the permittee implemented the selected strategy during each reporting period, following permit coverage. Including:

      i. Initial implementation costs and costs to operate and maintain the optimization strategy.

      ii. Length of time for full implementation, including start date.

iii. Anticipated and unanticipated challenges.

iv. Any impacts to the overall treatment performance as a result of process changes.

b. *Load Evaluation.* By March 31 each year beginning in 2023 each Permittee shall review effluent data collected during the previous calendar year to determine whether TIN loads are increasing.

i. Using all applicable monitoring data, determine facility's annual average TIN concentration and load from the reporting period. **If the annual TIN load exceeds the Action Level in Table 5 (or the applicable bubbled Action Level in Table 6) take the corrective actions in S4.D.**

ii. Determine the treatment plant's TIN removal rate observed during the reporting period.

iii. Compare the empirical TIN removal rate (identified in S4.C.1.a.i) for the WWTP prior to optimization as determined through modeling (or equivalent evaluation method) against the removal rate found in S4.C.2.b.ii

c. *Strategy Assessment.* By March 31 of each year, assess the effectiveness of the implemented optimization strategy. This assessment must rely, in part on the performance metric comparison completed under the Load Evaluation above (S4.C.2.b.iii). The Permittee must apply the following adaptive management principles to re-evaluate and, as necessary, modify their optimization strategy.

i. Determine whether the strategy met the anticipated performance metric. If it did not, identify the factors that caused it to not meet the metric.

ii. Identify whether modifications to the strategy can improve performance.

iii. Assess whether a different strategy or combination of strategies may provide better overall process improvements.

iv. Document changes made to the optimization strategy, if any.

a. Provide a detailed description of the modified or new optimization strategy. Include an implementation schedule for any changes and, as necessary, use the process model or equivalent tool to evaluate anticipated results.

b. Revise the anticipated TIN removal performance metric for use during the next reporting period and document the revision.

c. If the Permittee proposes no changes to the optimization strategy, it must provide reasons for not making changes.

3. Influent Nitrogen Reduction Measures/Source Control

   Permittees in Table 5 must develop an ongoing program to reduce influent TIN loads from septage handling practices, commercial, dense residential and industrial sources and submit documentation with the Annual Report. The program must:

   a. Review non-residential sources of nitrogen and identify any possible pretreatment opportunities.

   b. Identify strategies for reducing TIN from new multi-family/dense residential developments and commercial buildings.

D. Action Level Exceedance Corrective Actions

Permittees in Table 5 must evaluate whether or not they exceeded the facility specific action level and, if they did, implement corrective actions.

1. If the Permittee determines in the Annual Report that they have exceeded their action level, they must:

   a. Determine when the exceedance occurred and number of days the Permittee discharged above the action level.

   b. Select an additional optimization strategy from the list developed in S4.C.1.b to be implemented during the next reporting period. Revise the anticipated TIN removal performance metric prior to implementation of the new strategy and document the revision.

   c. With the next Annual Report, submit for review a proposed approach to reduce the most recent calculated annual effluent nitrogen load by at least 10%. This must be an abbreviated engineering report or technical memo, unless Ecology has previously approved a design document with the proposed solution. The proposed approach must utilize solutions that can be implemented within five years. This may include influent load reduction strategies identified in S4.C.3.

      The engineering document must include:

      i. Brief summary of the treatment alternatives considered and why the proposed approach was selected. Include cost estimates for operation and maintenance;

      ii. The basic design information, including influent characterization;

      iii. A description of the proposed treatment approach and operation, including updates to the WWTP's process flow diagram;

iv. Anticipated results from the proposed approach including expected effluent quality;

v. Certification by a licensed professional engineer.

d. If a Permittee exceeds an action level two years in a row, or for a third year during the permit term, the Permittee must begin to reduce nitrogen loads by implementing the proposed approach submitted per S4.D.1.c following Ecology's written approval.

e. Submit an update to the Permittee's Operation and Maintenance Manual no later than 30 days following implementation.

E. Nutrient Reduction Evaluation

1. All permittees in Table 5 except for LOTT must prepare and submit an approvable Nutrient Reduction Evaluation (NRE) to Ecology for review by December 31, 2025. Permittees with multiple plants may submit a combined report.

2. The NRE must include an all known and reasonable treatment (***AKART***) analysis in accordance with RCW 90.48.010 for purposes of evaluating reasonable treatment alternatives capable of reducing total inorganic nitrogen (TIN). It shall present an alternative representing the greatest TIN reduction that is reasonably feasible.

3. In addition, the NRE must assess other site- specific main stream treatment plant upgrades, side stream treatment opportunities, alternative effluent management options (e.g., disposal to ground, reclaimed water beneficial uses), the viability of satellite treatment, and other nutrient reduction opportunities that could achieve a final effluent concentration of 3 mg/L TIN (or equivalent load reduction) on both an annual average and seasonal average basis.

4. The analysis must be sufficiently complete that an engineering report may be developed for the preferred AKART alternative as well as the preferred alternatives to reach 3 mg/L TIN annually and seasonally, without substantial alterations of concept or basic considerations. The final report must contain appropriate requirements as described in the following guidance (or most recent version):

   a. The Criteria for Sewage Works Design (ECY Publication No. 98-37, 2019)

   b. Reclaimed Water Facilities Manual: The Purple Book (ECY Publication No. 15-10-024, 2019).

5. The analysis conducted for the NRE must include the following elements:

   a. Wastewater Characterization

i. Current flowrates and growth trends within the sewer service area.

ii. Current influent and effluent quality.

b. Treatment Technology Analysis

i. Description of current treatment processes, including any modifications made for optimization or due to corrective actions.

ii. Description of site limitations, constraints, or other treatment implementation challenges that exist.

iii. Identification and screening of potential treatment technologies for meeting two different levels of treatment:

1. AKART for nitrogen removal (annual basis), and

2. 3 mg/L TIN (or equivalent load), as an annual average and seasonal average

c. Economic Evaluation

i. Develop capital, operation and maintenance costs and 20 year net present value using the real discount rate in the most current Appendix C to Office of Management and Budget Circular No. A-94 for each technology alternative evaluated.

ii. Provide cost per pound of nitrogen removed.

iii. Provide details on basis for current wastewater utility rate structure, including:

1. How utilities allocate and recover costs from customers.

2. The frequency in which rate structures are reviewed.

3. The last time rates were adjusted and the reason for that adjustment.

iv. Provide impact to current rate structure for each alternative assessed.

d. Environmental Justice (EJ) Review

   i. Evaluate the demographics within the sewer service area to identify communities of color, Tribes, indigenous communities, and low income populations.

   ii. Include an affordability assessment to identify how much overburdened communities identified in S4.E.5.d.i can afford to pay for the wastewater utility.

   iii. Propose alternative rate structures or measures that can be taken to prevent adverse effects of rate increases on populations with economic hardship identified in S4.E.5.d.i.

   iv. Provide information on how recreational and commercial opportunities may be improved for communities identified in S4.E.5.d.i as a result of the treatment improvements identified.

e. Selection of the most reasonable treatment alternative based on the AKART assessment; and the selected alternative(s) for achieving an effluent concentration of 3 mg/L TIN (or equivalent load reduction) for both annual and seasonal averages.

f. Viable implementation timelines that include funding, design, and construction for meeting both the AKART and 3 mg/L TIN preferred alternatives.

S5. NARRATIVE EFFLUENT LIMITS FOR WWTPS WITH SMALL TIN LOADS

A. Applicability and Narrative Effluent Limits

Beginning on the effective date and lasting through expiration of this permit, each of the Permittees with small TIN loads listed in Table 8 may discharge total inorganic nitrogen from the WWTP through each facility's designated outfall. See Table 3 in Section S1.A for the load category assignment.

All discharges and activities authorized by this permit must comply with the terms and conditions of this permit. Each Permittee listed in Table 8 must comply with the narrative effluent limits listed in Table 7 which constitute the suite of BMPs required for a narrative water quality based effluent limit under 40 CFR 122.44(k).

Table 7. Narrative Effluent Limitations for WWTPs with Small TIN Loads

Parameter	Narrative Effluent Limit
Monitoring	Monitor and report per the requirements in S6.B.
Nitrogen Optimization Plan	Submit one Optimization Report per the requirements in S5.B
AKART Analysis	Submit an AKART Analysis per the requirements in S5.C

Table 8. Permittees with Small TIN Loads

Wastewater Treatment Plant	Individual NPDES Permit Number	Outfall Number
Alderwood STP	WA0020826	001
Bainbridge Island WWTP	WA0020907	001
Boston Harbor STP	WA0040291	001
Clallam Bay STP	WA0024431	001
Clallam Bay Corrections Center STP	WA0039845	001
Coupeville STP	WA0029378	001
Eastsound Orcas Village WWTP	WA0030911	001
Eastsound Sewer and Water District WWTP	WA0030571	001
Fisherman Bay STP	WA0030589	001
Friday Harbor STP	WA0023582	001
Gig Harbor WWTP	WA0023957	001
Hartstene Pointe STP	WA0038377	001
King County Vashon WWTP	WA0022527	001
Kitsap County Kingston WWTP	WA0032077	001
Kitsap County Manchester WWTP	WA0023701	001

Wastewater Treatment Plant	Individual NPDES Permit Number	Outfall Number
Kitsap County Sewer District #7 Water Reclamation Facility (WRF)	WA0030317	001
La Conner STP	WA0022446	001
Langley WWTP	WA0020702	001
McNeil Island Special Commitment Center WWTP	WA0040002	001
Mukilteo Water and Wastewater District WWTP	WA0023396	001
Oak Harbor STP	WA0020567	002
Penn Cove WWTP	WA0029386	001
Port Townsend STP	WA0037052	001
Rustlewood STP	WA0038075	001
Sekiu WWTP	WA0024449	001
Sequim WRF	WA0022349	001
Shelton WWTP	WA0023345	001
Skagit County Sewer District 2 Big Lake WWTP	WA0030597	001
Stanwood STP	WA0020290	001
Tamoshan STP	WA0037290	001
WA Parks Larrabee WWTP	WA0023787	001

B. Nitrogen Optimization Plan and Report

Each Permittee listed in Table 8 must develop, implement, and maintain a Nitrogen Optimization Plan to evaluate and implement operational strategies for maximizing nitrogen removal from the existing treatment plant during the permit term. Permittees must document their actions taken and apply an adaptive management approach at the WWTP. Permittees will quantify results with required monitoring under this Permit.

The Permittee must begin the actions described in this section immediately upon permit coverage. Documentation of Nitrogen Optimization Plan implementation must be submitted through the Single Report (S9- Reporting Requirements). See Appendix D for Report questions that satisfy the Nitrogen Optimization Plan requirements. This report must be submitted by March 31, 2026.

The Nitrogen Optimization Plan submitted by each Permittee in Table 8 must include the following components:

1. Treatment Process Performance Assessment

   Each Permittee listed in Table 8 must assess the nitrogen removal potential of the current treatment process and have the ability to evaluate optimization strategies prior to implementation.

   a. *Evaluation.* Each Permittee in in Table 8 shall develop a treatment process assessment method for purposes of evaluating optimization approaches during the permit term.

      i. Evaluate current (pre-optimization) process performance. Determine the empirical TIN removal rate for the WWTP.

      ii. Develop an initial assessment approach to evaluate possible optimization strategies at the WWTP prior to and after implementation.

      iii. Determine the optimization goal for the WWTP and apply the assessment. Develop and document a prioritized list of optimization strategies capable of achieving the optimization goal for each WWTP owned and operated by the Permittee. Update this list as necessary to continuously maintain at a selection of strategies for achieving each optimization goal identified.

      iv. The Permittee may exclude from the initial selection any optimization strategy considered but found to exceed a reasonable implementation cost or timeframe that exceeds one year. Documentation must include an explanation of the rationale and financial criteria used for the exclusion determination.

   b. *Initial Selection.* **By December 31, 2022** identify the optimization strategy selected for implementation.

      Document the expected % TIN removal for the optimization strategy prior to implementation. Identify a performance metric to evaluate results. TIN % removal, or a calculated reduction in effluent load or concentration may be used as a performance metric.

2. Optimization Implementation

   Permittees in Table 8 must document implementation of the selected optimization strategy (from S5.B.1.b) as it is applied to the existing treatment process during the reporting period. Permittees must document all adaptive management following initial implementation through the permit term.

   a. *Strategy Implementation.* Describe how the selected strategy was implemented during the reporting period, following permit coverage. Including:

i. Initial implementation costs and costs to operate and maintain the optimization strategy.

ii. Length of time for full implementation, including start date.

iii. Anticipated and unanticipated challenges

iv. Any impacts to the overall treatment performance as a result of process changes

b. *Load Evaluation.* Each Permittee listed in Table 8 shall review effluent data collected during the reporting period to determine whether TIN loads are increasing.

i. Using all applicable monitoring data, determine the facility's annual average TIN concentration and load for each year during the reporting period.

ii. Determine the treatment plant's TIN removal rate at the end of each year. Compare the removal rate with the pre-optimization rate identified in S5.B.1.a.i.

c. *Strategy Assessment.* Quantify the results of the implemented strategy and compare to the performance metric identified in S5.B.1.b.

If the performance metric was not met and/or the TIN loading increased, apply adaptive management, re-evaluate the optimization strategies and the metric to identify the reason. Select a new optimization strategy for implementation and/or revise the performance metric. Document any updates to the implementation schedule and overall plan.

3. Influent Nitrogen Reduction Measures/Source Control

Permittees in Table 8 must develop an ongoing program to reduce influent TIN loads from septage handling practices, commercial, dense residential and industrial sources.

a. Review non-residential sources of nitrogen and identify any possible pretreatment opportunities.

b. Identify strategies for reducing TIN from new multi-family/dense residential developments and commercial buildings.

C. AKART Analysis

1. All Permittees in Table 8 must prepare and submit an approvable all known and reasonable treatment (AKART) analysis to Ecology in accordance with RCW 90.48.010 for purposes of evaluating reasonable treatment alternatives capable of

reducing total inorganic nitrogen (TIN). Permittees must submit this report by December 31, 2025.

2. The analysis must contain appropriate requirements as described in the following guidance (or the most recent version):
    a. The Criteria for Sewage Works Design (ECY Publication No. 98-37, 2019)
    b. Reclaimed Water Facilities Manual: The Purple Book (ECY Publication No. 15-10-024, 2019)
3. The AKART analysis must include the following elements:
    a. Wastewater Characterization
        i. Current volumes, flowrates and growth trends
        ii. Current influent and effluent quality
    b. Treatment Technology Analysis
        i. Description of current treatment processes
        ii. Identification and screening of potential treatment technologies for TIN reduction that achieves AKART for nitrogen removal
    c. Economic Evaluation
        i. Develop capital, operation and maintenance costs and net present value for each technology
        ii. Provide cost per pound of nitrogen removed
        iii. Provide details on basis for current wastewater utility rate structure, including:
            1. How utilities allocate and recover costs from customers.
            2. The frequency in which rate structures are reviewed.
            3. The last time rates were adjusted and the reason for that adjustment.
        iv. Provide impact to current rate structure for each alternative assessed.
    d. Environmental Justice (EJ) Review
        i. Evaluate the demographics within the sewer service area to identify communities of color, Tribes, indigenous communities, and low income populations.

ii. Include an affordability assessment to identify how much overburdened communities identified in S5.C.3.d.i can afford to pay for the wastewater utility.

iii. Propose alternative rate structures or measures that can be taken to prevent adverse effects of rate increases on populations with economic hardship identified in S5.C.3.d.i.

iv. Provide information on how recreation and commercial opportunities may be improved for communities identified in S5.C.3.d.i as a result of the treatment improvements identified.

e. Selection of most reasonable treatment alternative.

f. Attainable implementation schedule that includes funding, design and construction of infrastructure improvement capable of achieving and maintaining AKART.

S6. MONTORING SCHEDULES AND SAMPLING REQUIREMENTS

A. Each permittee listed in Table 5 must monitor influent and effluent in accordance with the following schedule and requirements specified in Table 9 and 10, respectively. Influent and effluent monitoring locations must be representative. Permittee's may use the monitoring locations identified in their individual NPDES permit.

Table 9. Influent Sampling Requirements for S4 Permittees

Wastewater influent means the raw sewage flow from the collection system into the treatment facility. Sample the wastewater entering the headworks of the treatment plant excluding any side-stream returns from inside the plant, if possible. If a Permittee conducts additional total ammonia and/or nitrate plus nitrite sampling during the month, they must be report all results on the monthly DMR.

The Permittee must collect total ammonia, nitrate plus nitrite, and TKN samples during the same sampling event.

Parameter	Units & Specifications	Minimum Sampling Frequency	Analytical Method [j]	Laboratory Quantitation Level [k]	Sample Type
$CBOD_5$	mg/L	2/week [b]	SM5210-B	2 mg/L	24-hour composite [d]
Total Ammonia	mg/L as N	2/week [b]	SM4500-NH_3-B/C/D/E/F/G/H	0.02 mg/L	24-hour composite [d]
Nitrate plus	mg/L as N	1/month [c]	SM4500-NO_3-E/F/H	0.1 mg/L	24-hour composite [d]

Parameter	Units & Specifications	Minimum Sampling Frequency	Analytical Method [j]	Laboratory Quantitation Level [k]	Sample Type
Nitrite Nitrogen					
Total Kjeldahl Nitrogen (TKN)	mg/L as N	1/month [c]	SM4500-N_{org}-B/C and SM4500-NH_3-B/C/D/E/F/G/H	0.3 mg/L	24-hour composite [d]

Table 10. Effluent Sampling Requirements for S4 Permittees

Final wastewater effluent means wastewater exiting the last treatment process or operation. Typically, this is after or at the exit from the chlorine contact chamber or other disinfection process. The total ammonia, TKN, and nitrate plus nitrite samples must be taken during the same sampling event.

Parameter	Units & Specifications	Minimum Sampling Frequency	Analytical Method [j]	Laboratory Quantitation Level [k]	Sample Type
Flow [e]	MGD	2/week [b]	--	--	Metered/ recorded
$CBOD_5$ [a]	mg/L	2/week [b]	SM5210-B	2 mg/L	24-hour composite [d]
Total Organic Carbon	mg/L	1/month [c]	SM5310-B/C/D	1 mg/L	24-hour composite [d]
Total Ammonia	mg/L as N	2/week [b]	SM4500-NH_3-B/C/D/E/F/G/H	0.02 mg/L	24-hour composite [d]
Nitrate plus Nitrite Nitrogen	mg/L as N	2/week [b]	SM4500-NO_3-E/F/H	0.1 mg/L	24-hour composite [d]
TKN	mg/L as N	1/month [c]	SM4500-N_{org}-B/C and SM4500-NH_3-B/C/D/E/F/G/H	0.3 mg/L	24-hour composite [d]
Total Inorganic Nitrogen	mg/L as N	2/week [b]	--	--	Calculated [f]

Parameter	Units & Specifications	Minimum Sampling Frequency	Analytical Method [j]	Laboratory Quantitation Level [k]	Sample Type
Total Inorganic Nitrogen	Lbs/day	2/week [b]	--	--	Calculated [g]
Average Monthly Total Inorganic Nitrogen	Lbs	1/month [c]	--	--	Calculated [h]
Annual Total Inorganic Nitrogen, year to date	Lbs	1/month [c]	--	--	Calculated [i]

Table 11. Footnotes for Influent and Effluent Monitoring Tables 9 and 10

Footnote	Information
a	Take effluent samples for the $CBOD_5$ analysis before or after the disinfection process. If taken after disinfection and chlorine is used, dechlorinate and reseed the sample.
b	2/***week*** means two (2) times during each week and on a rotational basis throughout the days of the week.
c	1/month means one (1) time during each month
d	24-hour ***composite*** means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.
e	Report daily flows only on days when collecting total ammonia and nitrate plus nitrite samples.
f	TIN (mg/L) as N = Total Ammonia (mg/L as N) + Nitrate plus Nitrite (mg/L as N)
g	Calculate mass concurrently with the respective concentration of a sample, using the following formula: Concentration (in mg/L) X daily flow (in MGD) X Conversion Factor (8.34) = lbs/day
h	Calculate the monthly average total inorganic nitrogen load (lbs as N) using the following equation: Monthly average TIN load (lbs as N) $= ((\sum \text{Calculated TIN loads } (\frac{\text{lbs}}{\text{day}} as\ N))$ $/number\ of\ samples)$ x number of days in the calendar month

Footnote	Information
i	Calculate the annual total inorganic nitrogen, year to date using the following calculation: $$\text{Annual TIN load (lbs as N)} = \sum \text{Monthly average TIN loads, to date}$$
j	Or other equivalent EPA-approved method with the same or lower quantitation level
k	The Permittee must ensure laboratory results comply with the quantitation level (QL) specified in the table. However, if an alternative method from 40 CFR Part 136 is sufficient to produce measurable results in the sample, the Permittee may use that method for analysis. If the Permittee uses an alternative method it must report the test method and QL on the discharge monitoring report. If the permittee is unable to obtain the required QL due to matrix effects, the Permittee must report the matrix-specific method detection level (MDL) and QL on the DMR. The permittee must also upload the QA/QC documentation from the lab on the QL development.

B. Each permittee listed in Table 8 must monitor influent and effluent in accordance with the following schedule and requirements specified in Table 12 and 13, respectively. Influent and effluent monitoring locations must be representative. Permittee's may use the monitoring locations identified in their individual NPDES permit.

Table 12. Influent Sampling Requirements for S5 Permittees

Wastewater influent means the raw sewage flow from the collection system into the treatment facility. Sample the wastewater entering the headworks of the treatment plant excluding any side-stream returns from inside the plant, if possible. If a Permittee conducts additional total ammonia and/or nitrate plus nitrite sampling during the month, they must be report all results on the monthly DMR.

The Permittee must collect total ammonia, nitrate plus nitrite, and TKN samples during the same sampling event.

Parameter	Units & Specifications	Minimum Sampling Frequency	Analytical Method [j]	Laboratory Quantitation Level [k]	Sample Type
$CBOD_5$	mg/L	2/month [c]	SM5210-B	2 mg/L	24-hour composite [d]
Total Ammonia	mg/L as N	2/month [c]	SM4500-NH_3-B/C/D/E/F/G/H	0.02 mg/L	24-hour composite [d]
Nitrate plus Nitrite Nitrogen	mg/L as N	1/month [b]	SM4500-NO_3-E/F/H	0.1 mg/L	24-hour composite [d]
Total Kjeldahl	mg/L as N	1/month [b]	SM4500-N_{org}-B/C and	0.3 mg/L	24-hour composite [d]

Parameter	Units & Specifications	Minimum Sampling Frequency	Analytical Method [j]	Laboratory Quantitation Level [k]	Sample Type
Nitrogen (TKN)			SM4500-NH_3-B/C/D/E/F/G/H		

Table 13. Effluent Sampling Requirements for S5 Permittees

Final wastewater effluent means wastewater exiting the last treatment process or operation. Typically, this is after or at the exit from the chlorine contact chamber or other disinfection process. The total ammonia, TKN, and nitrate plus nitrite samples must be taken during the same sampling event.

Parameter	Units & Specifications	Minimum Sampling Frequency	Analytical Method [j]	Laboratory Quantitation Level [k]	Sample Type
Flow [e]	MGD	2/month [c]	--	--	Metered/ recorded
$CBOD_5$ [a]	mg/L	2/month [c]	SM5210-B	2 mg/L	24-hour composite [d]
Total Organic Carbon	mg/L	1/month [b]	SM5310-B/C/D	1 mg/L	24-hour composite [d]
Total Ammonia	mg/L as N	2/month [c]	SM4500-NH_3-B/C/D/E/F/G/H	0.02 mg/L	24-hour composite [d]
Nitrate plus Nitrite Nitrogen	mg/L as N	2/month [c]	SM4500-NO_3-E/F/H	0.1 mg/L	24-hour composite [d]
TKN	mg/L as N	1/month [b]	SM4500-N_{org}-B/C and SM4500-NH_3-B/C/D/E/F/G/H	0.3 mg/L	24-hour composite [d]
Total Inorganic Nitrogen	mg/L as N	2/month [c]	--	--	Calculated [f]
Total Inorganic Nitrogen	Lbs/day	2/month [c]	--	--	Calculated [g]
Average Monthly Total	Lbs	1/month [b]	--	--	Calculated [h]

Parameter	Units & Specifications	Minimum Sampling Frequency	Analytical Method [j]	Laboratory Quantitation Level [k]	Sample Type
Inorganic Nitrogen					
Annual Total Inorganic Nitrogen, year to date	Lbs	1/month [b]	--	--	Calculated [i]

Table 14. Footnotes for Influent and Effluent Monitoring Tables 12 and 13

Footnote	Information
a	Take effluent samples for the $CBOD_5$ analysis before or after the disinfection process. If taken after, dechlorinate and reseed the sample.
b	1/month means one (1) time during each month
c	2/month means two (2) times during each month and on a rotational basis throughout the days of the week, except weekends and holidays.
d	24-hour composite means a series of individual samples collected over a 24-hour period into a single container, and analyzed as one sample.
e	Report daily flows only on days when collecting total ammonia and nitrate plus nitrite samples.
f	TIN (mg/L) as N = Total Ammonia (mg/L as N) + Nitrate plus Nitrite (mg/L as N)
g	Calculate mass concurrently with the respective concentration of a sample, using the following formula: Concentration (in mg/L) X daily flow (in MGD) X Conversion Factor (8.34) = lbs/day
h	Calculate the monthly average total inorganic nitrogen load (lbs as N) using the following equation: $\text{Monthly average TIN load (lbs as N)} = ((\sum \text{Calculated TIN loads } (\frac{\text{lbs}}{\text{day}} as\ N)) /number\ of\ samples) \text{ x number of days in the calendar month}$
i	Calculate the annual total inorganic nitrogen, year to date using the following calculation: $\text{Annual TIN load (lbs as N)} = \sum \text{Monthly average TIN loads, to date}$
j	Or other equivalent EPA-approved method with the same or lower quantitation level

Footnote	Information
k	The Permittee must ensure laboratory results comply with the quantitation level (QL) specified in the table. However, if an alternative method from 40 CFR Part 136 is sufficient to produce measurable results in the sample, the Permittee may use that method for analysis. If the Permittee uses an alternative method it must report the test method and QL on the discharge monitoring report. If the permittee is unable to obtain the required QL due to matrix effects, the Permittee must report the matrix-specific method detection level (MDL) and QL on the DMR. The permittee must also upload the QA/QC documentation from the lab on the QL development.

C. Sampling and Analytical Procedures

1. Samples and measurements taken to meet the requirements of this permit must represent the volume and nature of the monitored parameters, including ***representative sampling*** of any unusual discharge or discharge condition, including authorized ***bypasses***, upsets, and maintenance-related conditions affecting effluent quality.

2. Sampling and analytical methods used to meet the monitoring requirements specified in this permit must conform to the latest revision of the *Guidelines Establishing Test Procedures for the Analysis of Pollutants* contained in 40 CFR 136 (or as applicable in 40 CFR subchapter N [Parts 400-471] or 40 CFR subchapter O [Parts 501-503]) unless otherwise specified in this permit.

D. Flow measurement

The Permittee must:

3. Select and use appropriate flow measurement and method consistent with accepted scientific practices.

4. Install, calibrate, and maintain these devices to ensure the accuracy of the measurements is consistent with the accepted industry standard, the manufacture's recommendation, and approved O&M manual procedures for the device and the wastestream.

5. Establish a calibration frequency for each device or instrument in the Permittee's O&M Manual required that conforms to the frequency recommended by the manufacturer.

6. Maintain calibration records for at least three years.

E. Laboratory Accreditation

7. The Permittee must ensure that all monitoring data required by Ecology for permit specified parameters is prepared by a laboratory registered or accredited under the provisions of chapter 173-50 WAC, *Accreditation of Environmental*

Laboratories. Flow and internal process control parameters are exempt from this requirement.

F. Request for reduction in monitoring

8. The Permittee may request a reduction of the sampling frequency after twelve (12) months of monitoring by demonstrating that the distribution of concentrations can be accurately represented with a lower sampling frequency. Ecology will review each request and at its discretion grant the request in writing when it reissues the permit coverage or by a permit coverage modification.

9. The Permittee must:

   a. Provide a written request.

   b. Clearly state the parameters for which it is requesting reduced monitoring.

   c. Clearly state the justification for the reduction.

S7. DISCHARGES TO 303(D) OR TMDL WATER BODIES

If EPA approves an applicable ***Total Maximum Daily Load*** (TMDL) for WWTPs owned and operated by the Permittee Ecology will address any permit requirements related to the approved TMDL in the Permittee's individual permit or through a modification of this permit.

S8. SOLID AND LIQUID WASTE DISPOSAL

A. Solid Waste Handling

1. The Permittee must handle and dispose of all solid waste material in such a manner as to prevent its entry into ***waters of the state***.

B. Leachate

2. The Permittee must not allow leachate from its solid waste material to enter state waters nor allow such leachate to cause violations of the State Surface Water Quality Standards, Chapter 173-201A WAC, or the State Groundwater Quality Standards, Chapter 173-200 WAC.

S9. REPORTING AND RECORDKEEPING REQUIREMENTS

A. Discharge Monitoring Reports

Permittees required to conduct ***water quality*** sampling in accordance with Special Conditions S6, and/or G13 (Additional Monitoring) must submit the results to Ecology. Permittees must submit the monthly DMR by the 28th day of the following month.

Permittees must submit monitoring data using Ecology's WQWebDMR program. To find out more information and to sign up for WQWebDMR go to: https://ecology.wa.gov/Regulations-Permits/Guidance-technical-assistance/Water-quality-permits-guidance/WQWebPortal-guidance

B. Monitoring Requirements

1. Wastewater Sampling Frequency

   a. The Permittee must sample the influent and effluent discharge location at the frequency listed in Condition S6.A and S6.B.

   b. Samples must be representative of the flow and characteristics of the discharge.

   c. Sampling is not required outside of normal working hours or during unsafe conditions.

2. Wastewater Sampling Locations

   a. Influent and effluent sampling locations must be representative. Permittees may use the compliance monitoring locations in their individual NPDES permit, prior to entry into waters of the state.

3. Wastewater Sampling Documentation

   For each sample taken, the Permittee must record and retain the following information:

   a. Sample date and time

   b. Sample location

   c. Method of sampling, and method of sample preservation, if applicable

   d. Individual who performed the sampling

4. Where wastewater monitoring requirements under this Permit mirror requirements in a Permittee's individual permit, the same result may be applied to both permits.

5. Additional Monitoring by the Permittee

a. If the Permittee monitors any ***pollutant*** more frequently than required by this permit using test procedures specified by Condition S6, the Permittee must include the results of the extra monitoring in the calculation and reporting of the data submitted in the Permittee's DMR.

C. Annual Report for Dominant Loaders

1. No later than March 31 of each year, each Permittee listed in Table 5 must submit an Annual Report documenting optimization and the adaptive management used at their WWTP. The Permittee must submit their first annual report by March 31, 2023 for the reporting period that begins on January 1, 2022 and lasts through December 31, 2022. All subsequent Annual Reports must use the reporting period of the previous calendar year unless otherwise specified.

2. Permittees shall submit Annual reports electronically using Ecology's Water Quality Permitting Portal (WQWebPortal) available on Ecology's website unless otherwise directed by Ecology.

3. The Annual Report documenting the Nutrient Optimization Plan for Permittees listed in Table 5 must include the following:

a. Submittal of the Annual Report form as provided by Ecology pursuant to S4.C, describing the status of the requirements of this Permit during the reporting period.

b. Attachments to the Annual Report including summaries, descriptions, reports and other information as required, or as applicable, to meet the requirements of this Permit during the reporting period, or as a required submittal. Refer to Appendix C for Annual Report questions.

c. Certification and signature pursuant to G2.D and notification of any changes to authorization pursuant to G2.C.

D. Single Report for Smallest Loaders

1. No later than March 31, 2026 each Permittee listed in Table 8 must submit an Optimization Report documenting optimization and the adaptive management used at their WWTP. The reporting period for this report will be from January 1, 2022 through December 31, 2025.

2. Permittees must submit the Nitrogen Optimization Report electronically using Ecology's Water Quality Permitting Portal (WQWebPortal) available on Ecology's website unless otherwise directed by Ecology.

3. The electronic report documenting the optimization for Permittees listed in Table 6 must include the following:

a. Submittal of the Optimization Report form as provided by Ecology pursuant to S5.C, describing the status of the requirements of this Permit during the reporting period.

b. Attachments to the Optimization Report including summaries, descriptions, reports and other information as required, or as applicable, to meet the requirements of this Permit during the reporting period, or as a required submittal. Refer to Appendix D for Optimization Report questions.

c. Certification and signature pursuant to G2.D and notification of any changes to authorization pursuant to G2.C.

E. Records Retention

The Permittee must retain records of all monitoring information (field notes, sampling results, etc.), optimization documents submitted with the annual or one-time report, and any other documentation of compliance with permit requirements for a minimum of five years following the termination of permit coverage. Such information must include all calibration and maintenance records, and records of all data used to complete the application for this permit. This period of retention must be extended during the course of any unresolved litigation regarding the discharge of pollutants by the Permittee or when requested by Ecology.

F. Noncompliance Notification

In the event the Permittee is unable to comply with any of the terms and conditions of this permit which may cause a threat to human health or the environment, including threats resulting from unanticipated ***bypass*** or upset, or does not comply with the narrative effluent requirements, the Permittee must:

1. Immediately, in no case more than 24 hours of becoming aware of the circumstances, notify Ecology of the failure to comply by calling the applicable Regional office phone number (find at: https://ecology.wa.gov/About-us/Get-involved/Report-an-environmental-issue/Report-a-spill).

2. Immediately take action to prevent the discharge/***pollution***, or otherwise stop or correct the noncompliance.

3. Submit a written report to Ecology within five (5) days of the time the Permittee becomes aware of a reportable event. The report must contain:

    a. A description of the noncompliance and its cause

    b. The period of noncompliance including exact dates and times

    c. If the noncompliance has not been corrected, the anticipated time it is expected to continue

d. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance

Ecology may waive the written report on a case-by-case basis upon request if the Permittee has submitted a timely oral report.

Compliance with these requirements does not relieve the Permittee from responsibility to maintain continuous compliance with the terms and conditions of this permit or the resulting liability for failure to comply. Refer to Section G14 of this permit for specific information regarding non-compliance.

G. Access to Plans and Records

1. The Permittee must retain the following permit documentation (reports and monitoring records) on site, or within reasonable access to the site, for use by the operator or for on-site review by Ecology:

   a. Permit Coverage Letter

   b. Puget Sound Nutrient General Permit

   c. Discharge Monitoring Reports

   d. Attachments to the Annual or Single Report as required in the Nitrogen Optimization Plan (NOP)

   e. Nutrient Reduction Evaluation for Permittees listed in Table 5 or AKART Analysis for Permittees listed in Table 7

S10. PERMIT FEES

The Permittee must pay permit fees assessed by Ecology. Fees for wastewater discharges covered under this permit are established by Chapter 173-224 WAC.

GENERAL CONDITIONS

G1. DISCHARGE VIOLATIONS

All discharges and activities authorized by this general permit must be consistent with the terms and conditions of this general permit. Any discharge of any pollutant at a level in excess of that identified and authorized by the general permit is a violation of the terms and conditions of this permit.

G2. SIGNATORY REQUIREMENTS

A. All permit applications must bear a certification of correctness to be signed:

1. In the case of corporations, by a responsible corporate officer;
2. In the case of a partnership, by a general partner of a partnership;
3. In the case of sole proprietorship, by the proprietor; or
4. In the case of a municipal, state, or other public facility, by either a principal executive officer or ranking elected official.

B. All reports required by this permit and other information requested by Ecology must be signed by a person described above or by a duly authorized representative of that person. A person is a duly authorized representative only if:

1. The authorization is made in writing by a person described above and submitted to Ecology.
2. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility, such as the position of plant manager, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters.

C. Changes to authorization. If an authorization under paragraph G2.B.2 above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph G2.B.2 above must be submitted to Ecology prior to or together with any reports, information, or applications to be signed by an authorized representative.

D. Certification. Any person signing a document under this section must make the following certification:

"I certify under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated

the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

G3. RIGHT OF INSPECTION AND ENTRY

The Permittee must allow an authorized representative of Ecology, upon the presentation of credentials and such other documents as may be required by law:

A. To enter upon the premises where a discharge is located or where any records are kept under the terms and conditions of this permit.

B. To have access to and copy – at reasonable times and at reasonable cost -- any records required to be kept under the terms and conditions of this permit.

C. To inspect – at reasonable times – any facilities, equipment (including monitoring and control equipment), practices, methods, or operations regulated or required under this permit.

D. To sample or monitor – at reasonable times – any substances or parameters at any location for purposes of assuring permit compliance or as otherwise authorized by the ***Clean Water Act***.

G4. GENERAL PERMIT MODIFICATION AND REVOCATION

This permit may be modified, revoked and reissued, or terminated in accordance with the provisions of Chapter 173-226 WAC. Grounds for modification, revocation and reissuance, or termination include, but are not limited to, the following:

A. When a change occurs in the technology or practices for control or abatement of pollutants applicable to the category of dischargers covered under this permit.

B. When effluent limitation guidelines or standards are promulgated pursuant to the CWA or Chapter 90.48 RCW, for the category of dischargers covered under this permit.

C. When a water quality management plan containing requirements applicable to the category of dischargers covered under this permit is approved, or

D. When information is obtained that indicates cumulative effects on the environment from dischargers covered under this permit are unacceptable.

G5. REVOCATION OF COVERAGE UNDER THE PERMIT

Pursuant to Chapter 43.21B RCW and Chapter 173-226 WAC, the ***Director*** may terminate coverage for any discharger under this permit for cause. Cases where coverage may be terminated include, but are not limited to, the following:

A. Violation of any term or condition of this permit.

B. Obtaining coverage under this permit by misrepresentation or failure to disclose fully all relevant facts.

C. A change in any condition that requires either a temporary or permanent reduction or elimination of the permitted discharge.

D. Failure or refusal of the Permittee to allow entry as required in RCW 90.48.090.

E. A determination that the permitted activity endangers human health or the environment, or contributes to water quality standards violations.

F. Nonpayment of permit fees or penalties assessed pursuant to RCW 90.48.465 and Chapter 173-224 WAC.

G. Failure of the Permittee to satisfy the public notice requirements of WAC 173-226-130(5), when applicable.

The Director may require any discharger under this permit to apply for and obtain coverage under an individual permit or another more specific general permit. Permittees who have their coverage revoked for cause according to WAC 173-226-240 may request temporary coverage under this permit during the time an individual permit is being developed, provided the request is made within ninety (90) days from the time of revocation and is submitted along with a complete individual permit application form.

G6. REPORTING A CAUSE FOR MODIFICATION

The Permittee must submit a new application, or a supplement to the previous application, whenever a material change to the existing treatment process occurs or in the quantity or type of discharge is anticipated which is not specifically authorized by this permit. This application must be submitted at least sixty (60) days prior to any proposed changes. Filing a request for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not relieve the Permittee of the duty to comply with the existing permit until it is modified or reissued.

G7. COMPLIANCE WITH OTHER LAWS AND STATUTES

Nothing in this permit will be construed as excusing the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations.

G8. DUTY TO REAPPLY

The Permittee must apply for permit renewal at least 180 days prior to the specified expiration date of this permit.

G9. TRANSFER OF GENERAL PERMIT COVERAGE

In the event of any change in control or ownership of facilities from which the authorized discharge emanate, the Permittee must notify the succeeding owner or controller of the existence of this permit by letter, a copy of which must be forwarded to Ecology. Coverage under this general permit is automatically transferred to a new discharger, if all of the following conditions are met:

A. A written agreement (Transfer of Coverage Form) between the current discharger (Permittee) and new discharger, signed by both parties and containing a specific date for transfer of permit responsibility, coverage, and liability is submitted to Ecology.

B. Ecology does not notify the Permittee and new discharger of the need to submit a new application for coverage under the general permit or for an individual permit pursuant to Chapters 172-216, 173-220, and 173-226 WAC.

C. Ecology does not notify the current discharger (Permittee) and new discharger of Ecology's intent to revoke coverage under the general permit. If this notice is not given, the transfer is effective on the date specified in the written agreement.

G10. REMOVED SUBSTANCES

The Permittee must not re-suspend or reintroduce collected screenings, grit, solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewater to the final effluent stream for discharge to state waters.

G11. DUTY TO PROVIDE INFORMATION

The Permittee must submit to Ecology, within a reasonable time, all information that Ecology may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The

Permittee must also submit to Ecology, upon request, copies of records required to be kept by this permit [40 CFR 122.41(h)].

G12. OTHER REQUIREMENTS OF 40 CFR

All other requirements of 40 CFR 122.41 and 122.42 are incorporated in this permit by reference.

G13. ADDITIONAL MONITORING

Ecology may establish specific monitoring requirements in addition to those contained in this permit by administrative order or permit modification.

G14. PENALTIES FOR VIOLATING PERMIT CONDITIONS

Any person who is found guilty of willfully violating the terms and conditions of this permit shall be deemed guilty of a crime, and upon conviction thereof shall be punished by a fine of up to ten thousand dollars ($10,000) and costs of prosecution, and/or by imprisonment in the discretion of the court. Each day upon which a willful violation occurs may be deemed a separate and additional violation.

Any person who violates the terms and conditions of a waste discharge permit shall incur, in addition to any other penalty as provided by law, a civil penalty in the amount of up to ten thousand dollars ($10,000) for every such violation. Each and every such violation shall be a separate and distinct offense, and in case of a continuing violation, every day's continuance shall be deemed to be a separate and distinct violation.

G15. UPSET

Definition – "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit effluent limitations because of factors beyond the reasonable control of the Permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

An upset constitutes an affirmative defense to an action brought for noncompliance with such technology-based permit effluent limitations if the requirements of the following paragraph are met.

A Permittee who wishes to establish the affirmative defense of upset must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence that:

1. an upset occurred and that the Permittee can identify the cause(s) of the upset;
2. the permitted facility was being properly operated at the time of the upset;
3. the Permittee submitted notice of the upset as required in Special Condition S9.F., and;
4. the Permittee complied with any remedial measures required under this permit.

In any enforcement proceeding, the Permittee seeking to establish the occurrence of an upset has the burden of proof.

G16. PROPERTY RIGHTS

This permit does not convey any property rights of any sort, or any exclusive privilege.

G17. DUTY TO COMPLY

The Permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

G18. TOXIC POLLUTANTS

The Permittee must comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants within the time provided in the regulations that establish those standards or prohibitions, even if this permit has not yet been modified to incorporate the requirement.

G19. PENALTIES FOR TAMPERING

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than two years per violation, or by both. If a conviction of a person is for a violation committed after a first conviction of such person under this condition, punishment shall be a fine of not more than $20,000 per day of violation, or imprisonment of not more than four (4) years, or both.

G20. REPORTING PLANNED CHANGES

The Permittee must, as soon as possible, but no later than one hundred eighty (180) days prior to the proposed changes, give notice to Ecology of planned physical alternations or additions to the permitted facility, production increases, or process modification which will result in:

A. The permitted facility being determined to be a new source pursuant to 40 CFR 122.29(b).

B. A significant change in the nature or an increase in quantity of pollutants discharged.

C. A significant change in the Permittee's sludge use or disposal practices.

Following such notice, permit coverage may be modified, or revoked and reissued pursuant to 40 CFR 122.62(a) to specify and limit any pollutants not previously limited. Until such modification is effective, any new or increased discharge in excess of permit limits or not specifically authorized by this permit constitutes a violation.

G21. REPORTING OTHER INFORMATION

Where the Permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to Ecology, it must promptly submit such facts or information.

G22. REPORTING ANTICIPATED NON-COMPLIANCE

The Permittee must give advance notice to Ecology by submission of a new application or supplement thereto at least forty-five (45) days prior to commencement of such discharges, of any facility expansions, or other planned changes, such as process modifications, in the permitted facility which may result in noncompliance with permit limits or conditions. Any maintenance of facilities, which might necessitate unavoidable interruption of operation and degradation of effluent quality, must be scheduled during non-critical water quality periods and carried out in a manner approved by Ecology.

G23. APPEALS

A. The terms and conditions of this general permit, as they apply to the appropriate class of dischargers, are subject to appeal by any person within 30 days of issuance of this general permit, in accordance with Chapter 43.21B RCW, and Chapter 173-226 WAC.

B. The terms and conditions of this general permit, as they apply to an individual discharger, are appealable in accordance with Chapter 43.21B RCW within 30 days of the effective date of coverage of that discharger. Consideration of an appeal of

general permit coverage of an individual discharger is limited to the general permit's applicability or nonapplicability to that individual discharger.

C. The appeal of general permit coverage of an individual discharger does not affect any other dischargers covered under this general permit. If the terms and conditions of this general permit are found to be inapplicable to any individual discharger(s), the matter shall be remanded to Ecology for consideration of issuance of an individual permit or permits.

G24. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit, or application of any provision of this permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of this permit shall not be affected thereby.

G25. BYPASS PROHIBITED

This permit prohibits a bypass, which is the intentional diversion of waste streams from any portion of a treatment facility.

Ecology may take enforcement action against a Permittee for a bypass unless one of the following circumstances (A, B, or C) applies.

A. Bypass for essential maintenance without the potential to cause violation of permit limits or conditions.

This permit authorizes a bypass if it allows for essential maintenance and does not have the potential to cause violations of limits or other conditions of this permit, or adversely impact public health as determined by Ecology prior to the bypass. The Permittee must submit prior notice, if possible, at least ten (10) days before the date of the bypass.

B. Bypass is unavoidable, unanticipated, and results in noncompliance of this permit.

This permit authorizes such a bypass only if:

1. Bypass is unavoidable to prevent loss of life, personal injury, or severe property damage. "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which would cause them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass.

2. No feasible alternatives to the bypass exist, such as:

   (a) The use of auxiliary treatment facilities.

   (b) Retention of untreated wastes.

   (c) Stopping production.

   (d) Maintenance during normal periods of equipment downtime, but not if the Permittee should have installed adequate backup equipment in the exercise of reasonable engineering judgment to prevent a bypass.

   (e) Transport of untreated wastes to another treatment facility.

3. The Permittee has properly notified Ecology of the bypass as required in Special Condition S9.F of this permit.

C. If bypass is anticipated and has the potential to result in noncompliance of this permit.

1. The Permittee must notify Ecology at least thirty (30) days before the planned date of bypass. The notice must contain:

   (a) A description of the bypass and its cause.

   (b) An analysis of all known alternatives which would eliminate, reduce, or mitigate the need for bypassing.

   (c) A cost-effectiveness analysis of alternatives including comparative resource damage assessment.

   (d) The minimum and maximum duration of bypass under each alternative.

   (e) A recommendation as to the preferred alternative for conducting the bypass.

   (f) The projected date of bypass initiation.

   (g) A statement of compliance with ***SEPA***.

   (h) A request for modification of water quality standards as provided for in WAC 173-201A-410, if an exceedance of any water quality standard is anticipated.

   (i) Details of the steps taken or planned to reduce, eliminate, and prevent reoccurrence of the bypass.

2. For probable construction bypasses, the Permittee must notify Ecology of the need to bypass as early in the planning process as possible. The Permittee must consider the analysis required above during the project planning and design process. The project-specific engineering report as well as the plans and specifications must include details of probable construction bypasses to the extent practical. In cases where the Permittee determines the probable need to

bypass early, the Permittee must continue to analyze conditions up to and including the construction period in an effort to minimize or eliminate the bypass.

3. Ecology will consider the following prior to issuing an administrative order for this type of bypass:

   (a) If the bypass is necessary to perform construction or maintenance-related activities essential to meet the requirements of this permit.

   (b) If feasible alternatives to bypass exist, such as the use of auxiliary treatment facilities, retention of untreated wastes, stopping production, maintenance during normal periods of equipment down time, or transport of untreated wastes to another treatment facility.

   (c) If the Permittee planned and scheduled the bypass to minimize adverse effects on the public and the environment.

After consideration of the above and the adverse effects of the proposed bypass and any other relevant factors, Ecology will approve or deny the request. Ecology will give the public an opportunity to comment on bypass incidents of significant duration, to the extent feasible. Ecology will approve a request to bypass by issuing an administrative order under RCW 90.48.120.

APPENDIX A – DEFINITIONS

303(d) Listed Waters means waterbodies listed as Category 5 on Washington State's Water Quality Assessment.

Action Level means an indicator value used to determine the effectiveness of best management practices at a WWTPs. Action levels are not water quality criteria or effluent limits by themselves but indicators of treatment optimization.

AKART means acronym for "all known, available, and reasonable methods of prevention, control, and treatment." AKART represents the most current methodology that can be reasonably required for preventing, controlling, or abating the pollutants and controlling pollution associated with a discharge.

Alternative Restoration Plan means a near-term plan, or description of actions, with a schedule and milestones, that is more immediately beneficial or practicable to achieving water quality standards.

Applicant means an owner or **operator in responsible charge** seeking coverage under this permit.

Best Management Practices (BMPs) means schedules of activities, prohibitions of practices, maintenance procedures, and other physical, structural and/or managerial practices to prevent or reduce the pollution of waters of the State.

Bypass means the intentional diversion of waste streams from any portion of a treatment facility.

Day means a period of 24 consecutive hours starting at 12:00 midnight and ending the following 12:00 midnight.

Clean Water Act (CWA) means the Federal Water Pollution Control Act enacted by Public Law 92-500, as amended by Public Laws 95-217, 95-576, 96-483, and 97-117; USC 1251 et seq.

Composite (also **Composite Sample)** means a mixture of grab samples collected at the same sampling point at different times, formed either by continuous sampling or by mixing discrete samples. May be "time-composite" (collected at constant time intervals) or "flow-proportional" (collected either as a constant sample volume at time intervals proportional to stream flow, or collected by increasing the volume of each aliquot as the flow increases while maintaining a constant time interval between the aliquots.

Director means the Director of the Washington Department of Ecology or his/her authorized representative.

Discharger means an owner or operator of any facility or activity subject to regulation under Chapter 90.48 RCW or the Federal Clean Water Act.

Domestic Wastewater means water carrying human wastes, including kitchen, bath, and laundry wastes from residences, buildings, industrial establishments, or other places, together with such ground water infiltration or surface waters as may be present.

Ecology means the Washington State Department of Ecology.

Ground Water means water in a saturated zone or stratum beneath the land surface or a surface water body.

Greater Puget Sound Region means the marine area where human nutrient loads, from Washington Waters of the Salish Sea, contribute to waters not meeting marine DO standards. The GPS region include the Northern Bays (Bellingham, Samish, and Padilla Bays) as well as Puget Sound Proper, which are the marine waters south of the entrance of Admiralty Inlet (Whidbey Basin, Main Basin, South Sound, and Hood Canal). Regional human nutrient loads discharged directly to the Strait of Juan de Fuca and Strait of Georgia contribute to impairments in GPS (Ahmed et al., 2019).

National Pollutant Discharge Elimination System (NPDES) means the national program for issuing, modifying, revoking and reissuing, terminating, monitoring, and enforcing permits, and imposing and enforcing pretreatment requirements, under sections 307, 402, 318, and 405 of the Federal Clean Water Act, for the discharge of pollutants to surface waters of the State from point sources. These permits are referred to as NPDES permits and, in Washington State, are administered by the Washington Department of Ecology.

Notice of Intent (NOI) means the application for, or a request for coverage under this general permit pursuant to WAC 173-226-200.

Operator means any individual who performs routine duties, onsite at a wastewater treatment plant that affect plant performance or effluent quality.

Operator in Responsible Charge means the individual who is designated by the owner as the person routinely onsite and in direct charge of the overall operation and maintenance of a wastewater treatment plant.

Optimization (also treatment optimization) means a best management practice (BMP) resulting in the refinement of WWTP operations that lead to improved effluent water quality and/or treatment efficiencies

Outfall means the location where the site's wastewater discharges to surface water.

Overburdened community means a geographic area where vulnerable populations face combined, multiple environmental harms and health impacts, and includes, but is not limited to, highly impacted communities as defined in RCW 19.405.020.

Owner means a town or city, a county, a sewer district, board of public utilities, association, municipality or other public body.

Permittee means an entity that receives notice of coverage under this general permit.

Point source means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, and container from which pollutants are or may be discharged to surface waters of the State. This term does not include return flows from irrigated agriculture.

Pollutant means dredged spoil, solid waste, incinerator residue, filter backwash, sewage, garbage, domestic sewage sludge (biosolids), munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste.

Pollution means contamination or other alteration of the physical, chemical, or biological properties of waters of the State; including change in temperature, taste, color, turbidity, or odor of the waters; or such discharge of any liquid, gaseous, solid, radioactive or other substance into any waters of the State as will or is likely to create a nuisance or render such waters harmful, detrimental or injurious to the public health, safety or welfare; or to domestic, commercial, industrial, agricultural, recreational, or other legitimate beneficial uses; or to livestock, wild animals, birds, fish or other aquatic life.

Receiving water means the water body at the point of discharge. If the discharge is to a storm sewer system, either surface or subsurface, the receiving water is the water body to which the storm system discharges. Systems designed primarily for other purposes such as for ground water drainage, redirecting stream natural flows, or for conveyance of irrigation water/return flows that coincidentally convey stormwater are considered the receiving water.

Representative sample (also **representative sampling**) means a wastewater sample which represents the flow and characteristics of the discharge. Representative samples may be a grab sample, a time-proportionate **composite sample**, or a flow proportionate sample.

SEPA (State Environmental Policy Act) means the Washington State Law, RCW 43.21C.020, intended to prevent or eliminate damage to the environment.

Site means the land where any "facility" is physically located.

Surface Waters of the State includes lakes, rivers, ponds, streams, inland waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Total Inorganic Nitrogen (TIN) means the sum of ammonia, nitrate, and nitrite. It includes dissolved and particulate fractions.

Total Maximum Daily Load (TMDL) means a calculation of the maximum amount of a pollutant that a water body can receive and still meet state water quality standards. Percentages of the total maximum daily load are allocated to the various pollutant sources. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The TMDL calculations must include a "margin of safety" to ensure that the water body can be protected in case there are unforeseen events or unknown sources of the pollutant. The calculation must also account for seasonable variation in water quality.

Washington Waters of the Salish Sea means areas of the Salish Sea subject to Washington State's Water Pollution Control Act (Chapter 90.48 RCW)

Wasteload Allocation (WLA) means the portion of a receiving water's loading capacity that is allocated to one of its existing or future point sources of pollution. WLAs constitute a type of water quality based effluent limitation (40 CFR 130.2[h]).

Water quality means the chemical, physical, and biological characteristics of water, usually with respect to its suitability for a particular purpose.

Waters of the State includes those waters as defined as "waters of the United States" in 40 CFR Subpart 122.2 within the geographic boundaries of Washington State and "waters of the State" as defined in Chapter 90.48 RCW, which include lakes, rivers, ponds, streams, inland waters, underground waters, salt waters, and all other surface waters and water courses within the jurisdiction of the state of Washington.

Week (same as **Calendar Week**) means a period of seven consecutive days starting at 12:01 a.m. (0:01 hours) on Sunday.

APPENDIX B – ACRONYMS

AKART	All Known, Available, and Reasonable Methods of Prevention, Control, and Treatment
BMP	Best Management Practice
CFR	Code of Federal Regulations
CWA	Clean Water Act
DIN	Dissolved Inorganic Nitrogen
DMR	Discharge Monitoring Report
EPA	Environmental Protection Agency
FR	Federal Register
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NRP	Nutrient Reduction Plan
POTW	Publicly Owned Treatment Works
PSNF	Puget Sound Nutrient Forum
RCW	Revised Code of Washington
SEPA	State Environmental Policy Act
TBEL	Technology Based Effluent Limit
TIN	Total Inorganic Nitrogen
TMDL	Total Maximum Daily Load
USEPA	United States Environmental Protection Agency
WAC	Washington Administrative Code
WQ	Water Quality
WQBEL	Water Quality Based Effluent Limit
WWTP	Wastewater Treatment Plant

APPENDIX C – ANNUAL REPORT QUESTIONS FOR DOMINANT LOADERS

Permittees are required to submit annual reports online, pursuant to Special Condition S9.C.

1. Is the facility description in your current individual NPDES permit consistent with the optimization actions you have taken? If no, **attach** a document descripting how the process has changed, or how you anticipate the process to change, and include an updated process flow diagram. (S2.D)

2. Does your facility have an up to date process model? If no, **attach** a document listing the date of the last update or description of the alternative evaluation method, and process model inputs the facility is using for optimization/planning, and plans for updating and maintaining your process model or alternative evaluation method. (S4.C.1.a)

3. What is your pre-optimization empirical TIN removal rate, expressed as a percentage? (S4.C.1.a.i)

4. **Attach** a document explaining your initial assessment approach for optimization. (S4.c.1.a.ii)

5. Did you maintain and/or update your assessment approach after year 1? If no, **attach** a document describing either the success of your initial assessment approach in achieving nutrient reduction goals or your plans and schedule for updating your assessment approach. (S4.C.1.a.ii)

6. **Attach** a document describing your optimization goal and how you determined it. (S4.C.1.b)

7. **Attach** a document describing the prioritized list of optimization strategies capable of achieving your optimization goal. (S4.C.1.b)

8. Did all of the potential optimization strategies you identified and evaluated for S4.C.1.b have a reasonable implementation cost and timeframe? If no, **attach** a document describing the feasibility and cost analysis that led to exclusion of any approach. (S4.C.1.b)

9. **Attach** a document describing your preferred optimization strategy for implementation in 2022 (due May 1). (S4.C.1.c)

10. What is the expected TIN removal for the selected optimization strategy? (S4.c.1.c)

11. **Attach** a document describing optimization plan implementation including start date, schedule for full implementation, costs, and challenges including impacts to other measures of plant treatment performance. (S4.C.2.a)

12. What TIN removal rate was observed during the reporting period? (S4.C.2.b.ii)

13. Did your plant meet or exceed the pre-optimization empirical TIN removal rate (S4.C.1.a.i) for the reporting period? (S4.C.2.b.iii)

14. Did your facility stay below the Action Level in S4.B, Table 5 or Table 6 for applicable jurisdictions with bubbled action levels? (S4.c.2.b.i)

    14.a Attach a document listing the contribution of each of your individual facilities to the total bubble allocation for the reporting period. (S4.C.2.b.i)

15. **(If Q13 = No and Q14=Y) Attach** a document describing optimization strategy assessment and adaptive management, by documenting: factors causing the WWTP to not meet the performance metric, whether modifications to the strategy could improve performance, and whether a different strategy or combination of strategies may be more appropriate. Also, document changes to the optimization strategy either through the selection of the new optimization strategy and new performance metric or existing implementation refinement. Revise the performance metric if electing to keep the existing strategy. Provide rationale for no changes if Permittee proposes no changes to the optimization strategy. (S4.C.2.c.i, S4.C.2.c.ii, S4.C.2.c.iii, S4.C.2.iv)

16. **Attach** a document describing your ongoing program to reduce influent TIN loads from septage handling practices, commercial, dense residential and industrial sources. (S4.C.3.a, S4.C.3.b)

17. **(If Q13 = No and Q14 = No) Attach** document including: date the exceedance occurred, the number of days the Action Level was exceeded during the reporting period, the adaptive management steps taken, the new optimization strategy selection, and the revision of the performance metric. (S4.D.1.a, S4.D.1.b)

18. **(If Q14=No) Attach** abbreviated engineering report or technical memo (due 12 months after exceedance was documented). (S4.D.1.c)

19. **(If Q14 = No in two prior years)** Did you implement the preferred approach as documented in the engineering report or technical memo, starting within 30 days of Ecology's approval? If no, **attach** a document outlining your implementation plan and schedule update. (S4.D.1.d)

20. Did you submit the required Nutrient Reduction Evaluation on or before 12/31/2026? If no, **date** the document was or will be provided. (S4.E)

21. Did you submit discharge monitoring reports according to the required schedule? If no, **attach** a document describing/listing the missing records and corrective actions taken/or planned. (S6, S9.A)

22. Are you retaining all applicable records? If no, **attach** a document describing/listing the missing records and corrective actions taken and/or planned. (S9.E)

23. Did you follow non-compliance notification requirements? If no, **attach** a document describing the non-compliance and the corrective actions taken and/or planned. (S9.F)

APPENDIX D – ONE TIME REPORT QUESTIONS FOR SMALL LOADERS

Permittees are required to submit the single report online, pursuant to Special Condition S9.D.

1. Is the facility description in your current individual NPDES permit consistent with the optimization actions you have taken? If no, **attach** a document descripting how the process has changed, or how you anticipate the process to change, and include an updated process flow diagram. (S2.D)

2. **Attach** a document describing your assessment process, your optimization goal, the list of prioritized optimization strategies identified, and the strategy implemented in 2022 (S5.C.1.b). If any optimization strategies were found to not have a reasonable implementation cost or timeframe (S5.C.2.a.iv), include description of the feasibility and cost analysis that led to exclusion of any approach(es). (S5.C.1.a, S5.C.1.b)

3. What is your pre-optimization empirical TIN removal rate? (S5.C.1.a.i)

4. Did you maintain you reassessment approach after year 1? If no, **attach** a document describing assessment revisions that occurred each year over the permit term. (S5.C.1.a.ii)

5. What is your expected Tin removal with the preferred optimization strategy? (S5.C.1.b)

6. **Attach** a document describing optimization implementation including costs, time for full implementation, start date, challenges, and impacts to treatment performance. (S5.C.2.a)

7. What was the TIN removal rate observed each year during the reporting period? (S5.C.2.b.ii)

8. Did your plant meet or exceed the pre-optimization empirical TIN removal rate in each year of this permit and also maintain or reduce TIN loads? If no, **attach** a document describing how you revised your optimization strategy in response to the evaluation in each of the prior permit years, and document your adaptive management steps, your assessment process, and the new optimization strategy or strategies you identified, and your updated optimization goal(s) and performance metric(s). (S5.C.2.b.ii,S5.C.2.c)

9. **Attach** a document describing your ongoing program to reduce influent TIN loads from septage handling practices, commercial, dense residential and industrial sources. (S5.C.3)

10. Did you submit the required AKART analysis on or before 12/31/2025? If no, **date** document was or will be provided. (S5.C)

11. Did you submit discharge monitoring reports according to the required schedule? If no, **attach** a document describing the missed monitoring activities and the corrective action taken. (S6, S9.A)

12. Are you retaining all applicable records? If no, **attach** a document descripting the missing records and the corrective action taken and/or planned. (S9.E)

13. Did you follow non-compliance notification requirements? If no, **attach** a document describing the non-compliance and the corrective actions taken and/or planned. (S9.F)